PROJECT DESCRIPTION I. GENERAL

This project involves the modification of a traffic signal at the intersection of north and south bound MD 650 (New Hampshire Avenue) and north and south bound MD 97 (Georgia Avenue) in Montgomery County. Five section signal heads shall be installed for the near side and far side of southbound MD 650 approach. All signal heads shall be upgraded to LED for all the other approaches for the intersection. New seven conductor cables shall be added to the cabinet for the installation of the five section heads, the three section signal heads shall use the existing cable to energize the heads.

II. INTERSECTION OPERATION A system controller housed in a base mounted cabinet exist at this location. the intersection operation shall be changed from 4 NEMA phases to 5 NEMA phases. The side streets for this location currently operate utilizing a concurrent phase for the north and southbound approaches. A exclusive/permissive left turn phase shall be installed for the southbound approach at the intersection. The mainline MD 97 shall operate in a concurrent sequence for the north and southbound approaches. Existing Video detection camera shall be utilized to accommodate the proposed exclusive/permissive phase on

- 1. For pavement markings other than those detailed on the plan all pavement markings shall be installed in accordance with MDSHA standards.
- 2. The contractor shall maintain the continuous operation of all interconnect, vehicular, detectors, and lighting devices. If any device is damaged by the contractor, it shall be repaired within 72 hours by the contractor at no cost to the Administration after notification by the Engineer.
- 3. Video Camera location / aligning shall be coordinated with the SHA Engineer. 4. All existing traffic signal equipment removed shall become the property of the Signal Contractor upon the completion of the new signal except for the controller and auxiliary
- equipment in the controller cabinet. 5. The Contractor shall be responsible for terminating all signal cable to the appropriate
- terminals and properly label each cable. 6. The Contractor shall verify all underground utilities prior to installing proposed signal equipment, utilities shown on the plan are schematic drawings and assumed to be in the correct locations. If any utility conflicts should arise the Contractor shall contact the project engineer.

OFFICE OF TRAFFIC AND SAFETY

CHIEF, TRAFFIC OPERATIONS

CHIEF SIGNAL OPERATIONS

CHIEF SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)

MR. RICHARD DAFF SR.

MR. ED RODENHIZER

MR. EUGENE BAILEY CHIEF SIGN OPERATIONS

MS. DARLENE EIDE

410-787-7630

410-787-7650

410-787-7670

410-787-7668

III. MAINTENANCE OF TRAFFIC

southbound MD 650.

SHALL BE ACCOMPLISHED USING SHA STANDARD DETAILS.

CONTACTS

COUNTY MR. KAMAL HAMUD TRAFFIC ENGINEERING MCDOT 240-777-8761

MR. ROBERT RICKETTS

CHIEF OF SIGNAL SHOP, MCDOT 301-279-1291 <u>DISTRICT</u> MR. CEDRIC WARD

301-513-7404 MR. VICTOR GRAFTON

ASSISTANT DISTRICT ENGINEER - UTILITIES 301-513-7350 MR. KEVIN NOWAK & MR. DUANE BERNARD

ASSISTANT DISTRICT ENGINEER - TRAFFIC

ASSISTANT DISTRICT ENGINEER - CONSTRUCTION 301-513-7336

MR. VERNON STINNETT ASSISTANT DISTRICT ENGINEER - MAINTENANCE 301-513-7304

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.

EQUIPMENT LIST

	AGORY E NO.		DESCRIPTION	UNITS	QUANTITY
9000)	NEMA LOAD	SWITCH	EA	1
B2.	EQUIF	PMENT TO BE	FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.		
CATAC	GORY		DESCRIPTION	UNITS	QUANTITY

UNITS QUANTITY CODE NO. MAINTENANCE OF TRAFFIC 12 INCH LED SIGNAL HEAD 31 EΑ REMOVE AND DISPOSE OF EXISTING TRAFFIC SIGNAL EQUIPMENT EΑ ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG) LF 25 100 ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)

C. IF THE CABINET IS TO BE REMOVED SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

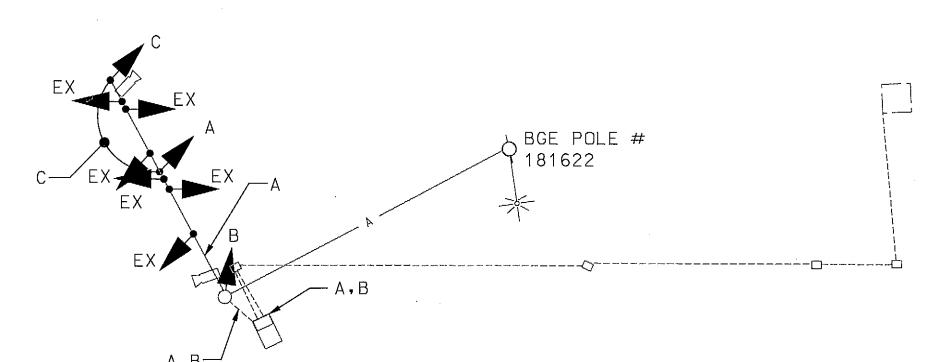


PHASE CHART

1 2 3 4 5 6 7 8	9
R R R R R R R R R	R
Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y	Y G

PHASE 2 + 6	G	G	G	G	R	R	R	R	R	
2 + 6 CHANGE	Y	Y	Y	Y	R	R	R	Ŗ	R	
4 + 7	R	R	R	R	<u>G</u> ∢ G−	∢ G-/G	R	R	R	H
7 CHANGE	R	R	R	R	<u>G</u> ∢ Y−	∢Y⊬G	R ′	R	R	
PHASE 4.+ 8	R	R	R	R	G	G	G	G	G	7
4 + 8 CHANGE	R	R	R	R	Y	Y	Y	Y	Y	}
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	

WIRING DIAGRAM



TOD NO: XX354-34 **SHA NO: MO255K5D** MD 650 @ MD 97

<u>KEY</u>

CONDUCTOR ELECTRICAL B CABLE (NO. 14 AWG)

C 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

EX EXISTING CABLE TO BE RE-USED

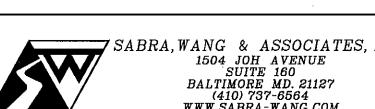
STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION

MD 650 (NEW HAMPSHIRE AVENUE)

AT MD 97 (GEORGIA AVENUE) BROOKEVILLE, MARYLAND

SCALE 1" = 20' ADVERTISED DATE JANUARY 2011 CONTRACT NO. XX3545168R

GENERAL INFORMATION SHEET



SABRA, WANG & ASSOCIATES, INC SUITE 160 BALTIMORE MD. 21127 (410) 737-6564 WWW.SABRA-WANG.COM

DESIGNED BY S. SMITH DRAWN BY ____ CHECKED BY S.DU &/I F.A.P. NO.

COUNTY MONTGOMERY LOGMILE __ TOD NO.

SHEET NO. 2 OF 2

pSG OF NO01 TS NO. 2442D DRAWING FILE: R:\2008\73 SHÁ BCS 2008-05A_TEDD DESIGN_STV_JV__\$5M\Task 88 MD 650 at MD 97 Signal Mod\Dwg\Signai\pSG-N001_K511.dgn

PLOTTED: Wednesday, February 23, 2011 AT 04:14 PM